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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,738	03/14/2005	Tsutomu Okada	36856.1330	8816
54066	7590	06/14/2006		
MURATA MANUFACTURING COMPANY, LTD. C/O KEATING & BENNETT, LLP 8180 GREENSBORO DRIVE SUITE 850 MCLEAN, VA 22102				
			EXAMINER KHUU, HIEN DIEU THI	
			ART UNIT 2863	PAPER NUMBER

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/527,738	OKADA, TSUTOMU	
	Examiner	Art Unit	
	Cindy D. Khuu	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 8 and 11-16 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/4/05 & 3/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 11-14, the methods of analyzing electromagnetic field do not produce any tangible results. The practical application of the claimed invention cannot be realized until the information determined is conveyed to the user. For the result (approximate solution of the electromagnetic field vector) to be tangible, it would need to output to a user, displayed to a user, stored for later use, or used in any tangible manner. Hence, the claims are treated as nonstatutory functional descriptive material (See MPEP Sec. 2106).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-8, 11-12 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Meuris et al. (US 2002/0042698).

With respect to claim 7, Meuris discloses an electromagnetic field analyzer (10; Paragraph 2) comprising: dividing means (15) for dividing form data as an analysis object into coarse elements (Fig. 22b) and fine elements (Fig. 22c)(Paragraphs 340 and 353); forming means (15) for forming a matrix defining an electromagnetic field vector of the coarse elements divided by the dividing means related to an electromagnetic field vector of the fine elements (Paragraphs 222 and 226); and calculating means (15) for calculating an approximate solution of the electromagnetic field vector of the fine elements by applying an iteration method of simultaneous linear equations while referring to the matrix formed by the forming means (Paragraphs 126).

With respect to claims 8, 12 and 16, Meuris further discloses an electromagnetic field analyzer (10), a computer (15) and a program (51) wherein the forming means (15) forms the matrix by expressing the elements of electromagnetic field vectors at the sides at a fine element using an interpolation function in the coarse elements (Paragraph 346; Fig. 23).

With respect to claim 11, Meuris further discloses a computerized method of controlling a computer (10) to analyze an electromagnetic field as an analysis object (Paragraph 126), wherein the computer (10) includes a first storage device (24) arranged to store divided elements and a second storage device (26) arranged to store a matrix.

With respect to claim 15, Meuris further discloses a computer-readable storage medium (52) having stored thereon a program (51) to control a computer to execute an electromagnetic field analyzing method for analyzing an electromagnetic field as an analyzing object (Paragraphs 137).

Allowable Subject Matter

Claims 9-10 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fails to disclose or render obvious, which makes the following claims allowable over the prior art:

With respect to claims 9 and 17, a computer-readable storage medium and an electromagnetic field analyzer, wherein when the length of a side l_i of the fine element is $|l_i|$, an interpolation function showing a relationship between the electromagnetic field at position x of the side l_i of the fine element and the electromagnetic field at a side j of the coarse element is $N_j^C(x)$, and the tangential vector of the side l_i of the fine element is t_i , the forming means forms a matrix P_{ij} by using the following expression: $P_{ij} = 1/l_i \int_{l_i} N_j^C(x) t_i dl$.

With respect to claims 10 and 18, a computer-readable storage medium and an electromagnetic field analyzer, wherein in the step of calculating, the accuracy of an approximate solution of the electromagnetic field vector of the fine elements is improved such that high-frequency components included in the approximate solution of the electromagnetic field vector of the fine element are removed by applying a stationary iteration method of simultaneous linear equations, such that a residual in the fine elements is mapped to a residual in the coarse elements by using the matrix formed by the step of forming, such that a correction vector to the coarse elements is formed by applying a direct method or a non-stationary iteration method of simultaneous linear equations, and such that a correction vector to the fine elements is obtained by using the matrix formed by the step of forming.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Matsuyama et al. (US 5,796,095) and Meaney et al. (US 5,841,288).

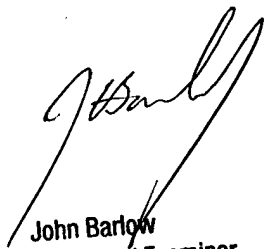
Fax/Telephone Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy D. Khuu whose telephone number is (571) 272-8585. The examiner can normally be reached on M-F, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CHU 5/31/06


John Barlow
Supervisory Patent Examiner
Technology Center 2800